

e. Summary

[0078] Limited treatment of *lal*-/- mice with LAL (10 injections in 30 days, 1.48 U/dose) led to gross, histologic and biochemical corrections of cholesterol and triglyceride levels in treated mice.

2. Plasma chemistries and lipid levels in *lal*-/- and *ldlr*-/- mice.

[0079] No differences in plasma glucose levels were observed in treated or untreated *lal*-/- or *ldlr*-/- mice although *ldlr*-/- mice have higher plasma glucose levels than wild type or *lal*-/- mice. The *lal*-/- and *ldlr*-/- mice had increased plasma non-esterified fatty acids (NEFA) levels compared to the wild-type controls (162% and 227%, respectively). LAL administration was associated with increases of the NEFA by 32.6% in *lal*-/- mice and 24.5% in *ldlr*-/- mice. Plasma triglycerides levels decreased in treated *lal*-/- mice, but were unchanged in *ldlr*-/- mice. The HFCD produced hypercholesterolemia in *ldlr*-/- mice. The plasma free cholesterol concentration increased 22-fold and plasma cholestryl ester concentration increased 13.8-fold compared to wild-type mice. The LAL treated *ldlr*-/- mice had decreases in plasma free cholesterol of 18.2% ($p=0.0894$) and in cholestryl esters of 26.7% ($P=0.0025$). The free cholesterol and cholesterol ester levels were unchanged in treated *lal*-/- mice.